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ABSTRACT

The Council feels that the widespread discussion resulting from the Prime Minister's speech at Ruskin College in October 1976 has paid insufficient attention to the importance of teaching technique. This has resulted in the policy decision made by the Council at the July 1977 Conference at Stirling that the principles of educational technology need to be considered at the highest levels and at the earliest planning stages. This annual report includes (1) a review of the year's activities; (2) a report of the Council's conference at Stirling; (3) financial reports; (4) membership of the Council and its committees, working groups, and staff; and (5) a register of participating organizations. Appendices include comments on the following: the 'Great Debate,' the Report of the Committee on the Future of Broadcasting, the Report of the Committee on Copyright and Design Law, and the Report of the Committee on Continuing Education of the Open University. Also appended is a report on the outcome of five seminars on computer assisted learning. (Author/STS)

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ANNUAL REPORT

for the year October 1976 – September 1977

IR005 745

COUNCIL FOR EDUCATIONAL TECHNOLOGY FOR THE UNITED KINGDOM

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COUNCIL FOR EDUCATIONAL TECHNOLOGY FOR THE UNITED KINGDOM

The Council was established by the Government on 1 October 1973, replacing and taking over the resources of the former National Council for Educational Technology (established in 1967). CET is funded directly through the Government's Education Departments, but it is an autonomous body, responsible for its own policy. Members of the Council are appointed through nomination by the major educational and training associations, including associations of local authorities and teachers' unions, and of organizations concerned with occupational and vocational training. Assessors are appointed to the Council by government departments with an interest in education and training. Additionally, provision is made for organizations with specific sector interests in education and training to register with CET as 'participating bodies' and thus to play a direct part in identifying problems which require action at national level.

The Council's remit covers all parts of the United Kingdom, and all aspects of education and training. It is the central organization for promoting the application and development of educational technology, and sets out to provide a focal point for the collection and dissemination of information and advice; to advise the Government, government departments, local and public authorities, and others concerned with the provision of education and training on all matters affecting or affected by educational technology; to assist in identifying the requirements of various sectors of education and training for services and materials in educational technology and to arrange for the satisfaction of those requirements; to initiate development programmes and studies of innovatory teaching and learning techniques; to advise on

coordinating and facilitating the work of organizations providing specialist or regional services in educational technology; and to participate in the work of appropriate international organizations. The Council for Educational Technology interprets the term 'educational technology' as being concerned in the broadest sense with the design of learning systems, drawing upon all the available methods, resources and communications media, and integrating them with established teaching techniques in the most effective manner to achieve stated ends.

CET is an 'enabling' organization, performing much of its work through the agency of other bodies rather than having direct service contacts with the individual teacher, trainer, or lecturer. It is essentially an innovative organization: encouraging, promoting and developing appropriate new teaching and learning techniques, and attempting to remove obstacles to overall progress in the use of educational technology.

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INTRODUCTION

This year has been marked by a level of public interest in education unprecedented in recent years. The 'Great Debate' which sprang from the Prime Minister's speech at Ruskin College in October 1976 has caused many aspects of education to be subjected to wide-spread discussion, the full implications of which have yet to be assessed. The Council feels that the overall discussion has paid insufficient attention to the central importance of teaching technique to the educational process. During the period of debate on the Government's Green Paper, 'Education in Schools, a Consultative Document', therefore, the Council will be taking positive steps to develop national awareness of the need for teaching technique to be considered on even terms with curriculum content, assessment and resources. (The Council's comments on this subject to the Secretary of State and to the Department of Education and Science on the draft headings for the Green Paper are given in full in Appendix A.)

This problem serves to emphasize the continuing need for the Council to improve its ability to influence the thinking of decision-takers at all levels and underlines the policy decision taken by Council at its Conference in Stirling in July, 1977 (see Section II) that the principles of educational technology need to be considered at the highest levels and at the earliest planning stages of education. This decision, together with the others taken at Stirling, will influence the emphasis of the Council's programme in forthcoming years, so that it remains responsive to the changing economic and social pressures on the education service.

Unusually for an educational body, the Council is an organization established to service the whole United Kingdom, and this fact has been particularly apparent in a year in which government devolution has also

been a matter for public discussion. The Council's summer conference in Stirling was the first occasion on which it had met in Scotland. It welcomed Professor David Sharp, the Chairman of the Scottish Council for Educational Technology, as a guest at its formal session. At the request of the Department of Education for Northern Ireland a study has been made of arrangements for coordinating the development of educational technology in the Province, and a similar investigation has been undertaken at the request of educational interests in Wales. In addition to these studies, an investigation is being made of the opportunities for the cooperative use of resources across local authority and sector boundaries in the English regions.

The Council's remit is also unusual in that it covers both education and training. Recent years have seen a concentration of the Council's programme activity upon the needs of primary and secondary schools and their teachers. This year, however, has seen an increase in the attention paid to other sectors.

Regular consultation at officer level with the Training Services Agency has been established and cooperative work is under way. Contacts with the Technician Education Council and Business Education Council are being developed, and again cooperative activities are in progress. Links have been made with the Further Education Curriculum Research and Development Unit in development of training workshops for further education staff, and discussions have been held with special interest organizations concerned with the universities and polytechnics to discuss aspects of the work of central service units. Only adult education now remains relatively isolated from contact with the Council's work and it is hoped, here, that a means will be found by which the contribution which educational technology can make in this field may be expressed

within the newly formed Advisory Council for Continuing and Adult Education.

The participating bodies registered with the Council's Sector Requirements Committee have made a particularly helpful contribution to the Council's thinking during this year. Special meetings have been held for organizations in the training for employment and further and higher education sectors. Both conferences were very well attended (some 60 organizations were represented at the two meetings) and positive proposals were put forward at each meeting for consideration by the Council. Meetings of other sectors are being arranged for the forthcoming year.

In a year which has seen no easing of the financial pressures on the educational service, the emphasis of the CET programme has continued to be on obtaining improved results from available resources. This was the main theme of the programme of regional meetings, concluded during the year, that brought together most of the chief education officers of the United Kingdom and many of their authorities' chairmen. It is continued, with especial reference to improving the effectiveness of in-service support, by the initiation of a further country-wide series of meetings with senior advisory staff. The advice and guidance for local authorities to enable them to carry out systematic studies of their educational technology provision has been successfully piloted and will become generally available in a few months' time. Work on a method for costing educational activities has been developed with the help of professional management consultants and the results prepared for publication. Support materials for organizers of management courses for headteachers have been prepared and tested, and will shortly be made available. A scheme for increasing the level of in-service training for teaching staff in an authority within existing budgets by the use of

packaged materials is being tested in collaboration with three local authorities and details of the proposals have been made available to others. An effort has also been made to conserve some of the accumulated experience and teaching materials about educational technology from those colleges of education which are closing down or being absorbed, so that valuable resources are not wasted.

However, this attention to some of the pressing problems of the present has not ruled out work with more long-term implications. In April 1977 the Council invited some 60 senior educationalists to a seminar at the Post Office Research Centre to consider the potential for education of current and 'near future' developments in telecommunications. The participants, under the chairmanship of Sir Brian Flowers, saw demonstrations of techniques ranging from audio and video teleconferencing to Viewdata and the electronic blackboard and discussed the implications of these new 'information delivery systems' for both the content and the administrative structure of the future education system. Some of these systems, especially telephone conferencing, are already making a practical contribution to the development of distant learning methods.

Work in the developing field of open learning systems, which sprang from a consultative conference held by the Council in 1976, has also been a major part of this year's effort. An investigation of current provision of this kind for mature motivated students has recently been completed and will be published before the end of 1977.

The Government's five-year National Development Programme in Computer Assisted Learning comes to an end in December 1977. In July, the Council was formally asked by the Department of Education and

Science to undertake responsibility for maintaining an information and program exchange activity after the completion of the Programme. The Council has agreed to do this, and over a period of two to three years will maintain a continuing concern with computer assisted learning in its programme.

I
REVIEW OF THE YEAR'S ACTIVITIES

I REVIEW OF THE YEAR'S ACTIVITIES

I.1 COUNCIL

The full Council has met three times in the year: in December 1976 and for its biennial residential meeting at the University of Stirling for two days in July 1977; and in January 1977 the Council received a presentation on, and discussed the future of, the National Development Programme in Computer Assisted Learning. At its meeting in December 1976, the Council reviewed the current programme in relation to the guidelines drawn up at the meeting at the University of York in 1975, and at its meeting in July 1977 discussed and recommended directions in which the programme should develop to assist education to respond to social and economic pressures in the next decade. A report on the latter meeting is included as Section II of this Report.

The Council heard with regret of the death in May 1977 of Mr John Forrester (Schools and Further Education, Scotland).

The term of service of 21 members of Council came to an end in October 1976, including that of the Chairman. Nine members including the Chairman accepted reappointment, six were replaced by new nominees, and six still remain to be reappointed or replaced.

Upon the replacement of Mr W A G Easton (Association of Principals of Colleges) the Council formally resolved to appoint Mr D N McAvoy (National Union of Teachers) as Representative Trustee in his stead.

In the Queen's Jubilee Honours List the Order of the British Empire was conferred on Mr F Hallworth who, besides being a member of Council and its Executive

Committee, also serves on the Sector Requirements Committee and the Publications and Information Advisory Committee.

In Section IV, the full Council membership is given. Names of the Council's Assessors are listed once only. They are, however, entitled to attend meetings of all other committees and working groups where their contributions are highly valued.

The Council has been fortunate in experiencing few changes in staff during the year, and its work is benefiting from the stability of the team.

April 1977 was the tenth anniversary of the late Mr Anthony Crosland's decision to establish the Council's predecessor, the National Council for Educational Technology. The Council records with pleasure the fact that one of NCET's first employees, Miss Jan Wright, remains on the Council's staff, completing ten years' service on 1 September 1977.

I.2 EXECUTIVE COMMITTEE

The Executive Committee met six times during the year. Its membership for 1976–77 is given in Section IV.

The Council has delegated to the Committee power to exercise control over the financial and day-to-day management of the Council's affairs.

Evidence to Committees of Inquiry

The Report of the Committee on the Future of Broadcasting (the Annan Committee) was published in March 1977 and the Council was invited to comment on it. These comments are given in Appendix B.

The Report of the Committee to Consider the Law on Copyright and Designs (the Whitford Committee) was also published in March 1977 and the Council has commented on it. These comments are given in Appendix C.

The Committee on Continuing Education of the Open University (the Venables Committee) issued its final report in December 1976. The Council's comments are given in Appendix D.

'The Great Debate'

The Council, in a letter from the Chairman to the Secretary of State for Education and Science and in a memorandum from the Director to HM Senior Chief Inspector, presented its views on the document 'Schools in England and Wales: Current Issues'. (The letter is given in Appendix A.) The Chairman, the Director and a number of Council members attended the regional meetings held during February and March 1977. Subsequently, the Council commented upon the headings intended for the Green Paper. These last are given also in Appendix A.

National Development Programme in Computer Assisted Learning

The National Development Programme will end in December 1977. The Department of Education and Science in 1976 asked the Council to organize a series of seminars of senior policy-makers in education in order to inform them of what the Programme had achieved and to ask for their advice and opinions about the future of computer assisted learning. The Council arranged five seminars, including the presentation to Council members themselves: to representatives of the Vice-Chancellors and Principals of UK Universities, of Directors of Polytechnics, of Chief Education Officers in England, Wales and Northern Ireland, all of which took place in London; and to representatives of Directors of Education and Directors of Central Institutions in Scotland, in Glasgow. The results of these several deliberations were drawn

together in a Report to the Department, which is given in Appendix E.

The Department has asked the Council to assume responsibility for the continuing work in computer assisted learning but has declined to provide funds for any further developmental work.

Resources in redundant colleges of education

The Executive Committee expressed concern about the fate of both the materials and educational technology expertise when certain colleges of education are closed over the next few years. As a result, the Director wrote to selected colleges suggesting that the Council act as a clearing-house for lists of materials available, and contact was also made with staff with a view to keeping in touch with them in the future.

Staff Terms and Conditions of Employment

In accordance with the requirements of the Employment Protection Act 1975, a document embodying the Terms and Conditions of Employment with the Council was drafted and approved by the Executive Committee.

Budget Review Sub-Committee

The Budget Review Sub-Committee met in September 1977 to consider in detail the budget proposals for the year 1978–79. Subsequent to their discussion, a budget summary was put to the Executive Committee, approved, and sent to the Departments.

I.3 SECTOR REQUIREMENTS COMMITTEE

The Sector Requirements Committee met three times during the year. The current membership is given in Section IV.

Participating Bodies

The Council has continued its policy of encouraging organizations with an interest in its work to apply for

inclusion in its Register of Participating Bodies. During the year four organizations were accepted for inclusion in the Register. A revised version of the Register was produced and distributed, in July 1977, which listed three national bodies, 23 organizations nominating members to the Council, and 66 other organizations which have applied for registration.

Educational technology in training for employment

The investigation carried out by the British Association for Commercial and Industrial Education (BACIE) on behalf of the Council and the Training Services Agency (TSA) has led to a positive proposal for the establishment of a central reference point for inquirers from the training for employment field seeking information about training techniques and materials. TSA has asked CET to consider establishing such a central reference point. It is hoped that this can be done as part of the information network service to education and training which is currently being set up by the Council as part of the work of its Publications and Information Advisory Committee.

Needs of all sectors for support staff

The collection and analysis of information in this field is now completed. As a result of this work, the Council will be issuing guidance suggesting new descriptive titles for support staff posts, giving outline job descriptions, suggesting appropriate levels of training and indicating a possible career structure. This guidance should be issued in the autumn of 1977. The analyses of information prepared during the investigation have been used to formulate a number of proposals for action by the Council which will be considered by the Steering Committee for Innovation and Development in October 1977.

Sector meetings

Two special meetings of participating bodies have been held during the year, beginning a series of conferences designed to encourage the participating bodies to take

a more active role in advising the Council on their needs and problems.

Organizations in the training for employment sector met in January 1977. Twenty-seven participating bodies were represented. The subjects considered were: information sources on educational technology (a report of the BACIE investigation which had been asked for by the first pilot meeting of this sector in 1975); packaged training for use with part-time instructors; the transition from school to work; and national initiatives to improve the application of educational technology in this sector. Firm proposals from the meeting were made on all four subjects. These were considered by Executive Committee in March 1977 and decisions about the proposals passed to the appropriate Council committees for action.

Thirty participating bodies were represented at the further and higher education sector meeting in May 1977. The subjects considered at this meeting were: staff development; the impact of distant learning systems; accountability; and the role and future of central service units. Proposals from the meeting on all these subjects were considered by Executive Committee in September 1977 and passed to the appropriate committees for action.

Conference of Participating Bodies

Preliminary preparations are being made for a second Conference of Participating Bodies to be held in March 1978.

Role of the Sector Requirements Committee

The Committee has expressed concern over its role and purpose and feels that a fundamental revision is necessary. The officers have been asked to undertake this and to make proposals to Council by the end of 1977.

I.4 STEERING COMMITTEE FOR INNOVATION AND DEVELOPMENT

The Committee met twice during the year. Current membership is given in Section IV. Three working parties are responsible for the detailed work on the development programme, and reports on the activities in the programme are given below according to the working party that is responsible.

Membership of the working parties, which include many members coopted for the benefit of their specialist knowledge, is also given in Section IV.

Working Party A: Educational Policy-making, Administration and Management

Seminars for senior policy-makers

To complete the series launched last year, seminars were held in Wales, Co Durham and Northampton for the chairmen of education committees and chief education officers. The series ended with the meeting in London organized in collaboration with the South-East Division of the Society of Education Officers. As the seminars were felt to be valuable in promoting an understanding of the applications of educational technology and the Council's work, similar events are being organized for senior policy-makers in other sectors of education and training. The first of these, designed for a group of professional associations working in the field of finance, took place in September 1977.

Case studies

A written case study of the development of innovative work in resource-based learning at Dundee College of Education has been published. This is accompanied by a film which shows the practical implications of individualized learning for students, lecturers and the college: a tape/slide; and a booklet containing transcripts of taped interviews with key people involved.

Provision of A-level tuition

A survey has been carried out to ascertain which local education authorities in England and Wales are making substantial use of educational technology in their provision of A-level tuition. Respondents were asked whether they might be interested in either some form of information exchange or an initiative leading to the collaborative preparation of materials. The majority of respondents expressed interest and proposals for action are under consideration.

Geographical linking of educational technology developments in England

An investigator has been commissioned to explore the potential for linking educational technology developments on a regional basis. This preliminary investigation will be concerned with actual and proposed developments in two regions of England, and it will include educational technology activities in *all* sectors of education and training.

Educational technology in Northern Ireland

Following the report of the Northern Ireland Committee on Educational Technology, 'Planning for educational technology in Northern Ireland' (June 1976), CET was invited to review the arrangements for the provision of educational technology services in Northern Ireland. An investigator was appointed to survey the arrangements that serve the various sectors of education and training, and to examine the need for further coordination and development. The study has been completed, and the report is being prepared for publication. The draft recommendations have been discussed with interested parties in Northern Ireland, who have asked the Council to help in their implementation.

Guidelines for headteachers' courses

Under the guidance of a representative group of headteachers, materials have been prepared for use by organizers of management courses for headteachers and potential heads. The materials suggest how a consideration of management aspects of educational technology can be integrated into such courses.

Modules cover 'Educational technology and the management of schools', 'The management of resources', 'Deployment of staff', 'Grouping of pupils' and 'Educational objectives'. Publication is planned for winter 1977.

Work on the preparation of a checklist for the use of headteachers themselves is in hand. The checklist is intended for either the headteachers' personal use, or incorporation into school-based in-service training exercises.

Open learning systems

Following a widely representative conference convened by CET in April 1976 to consider the case for developing open learning systems for mature students wishing to follow non-degree courses, a study group was established to examine the problems and possibilities in detail, with the assistance of a full-time investigator. The investigation has been completed and several potential areas for the development and initiation of open learning arrangements have been identified. It is planned to publish the report in December 1977.

A consultant has been appointed to follow up the potential areas noted in the initial report, together with others suggested by interested bodies. He will also continue to act as educational technology adviser to a team set up by the Technician Education Council and the Post Office Training Division. This group (which includes representatives of the colleges who are to offer the course) is developing a new course in telecommunications in the form of multi-media self-instructional materials.

From the Council's point of view, the course is an interesting example of an open learning arrangement, and part of the advisory role is to ensure that each stage in the development is fully documented so as to

provide future guidance on the problems and procedures involved in the development courses based on open learning systems principles.

Costing educational practice

Consultants were commissioned to develop a method of costing educational practice that would be of help to decision-makers. In order to test this method and exemplify its practical application the consultants then used it in the production of detailed cost analysis studies of six cases.

A handbook has been prepared based on the initial investigation and the case studies. This is designed to provide published guidance to anyone concerned with the cost implications of changes in educational practice.

Two consultative seminars were held in summer 1977 to give senior policy-makers from local education authorities, universities and polytechnics an opportunity to examine the draft and structure of the handbook. Publication is planned for late 1977.

Working Party B: *Training, Advice and Consultancy*

The Council's Training Support Activity is concentrated on the need to extend the provision of training in the theory and practice of educational technology in both the initial and in-service training of teachers and trainers, and of support staff. The programme covers four major areas:

1. Support for Organizers of Initial and In-service Training
2. Development of Learning Materials for the In-Service Education of Teachers
3. Research in Educational Technology
4. Training Activities for Support Staff

Current activities may be seen as contributory to one or other of these areas; although they cover different sectors of education, the products are in many cases intended to be transferable. The activities include: maintenance of contact with organizations and individuals responsible for initial and in-service education; production of training support materials; workshops, conference and other forms of 'active' training; research and information (to support the activities mentioned above).

Support for Organizers of Initial and In-Service Training

The aim is to provide comprehensive support, through a coordinated bank of activities, resource and support services, to those who directly or indirectly train others in the applications of educational technology. The training needs of a wide range of trainers are being identified through consultations with key workers in the education and training field and through the development of a technique for the analysis of the processes with which a trainer in educational technology may be involved.

Teacher training institutions

A series of consultative conferences with the directors of professional studies and those responsible for the training of teachers in educational technology has been held. All teacher training institutions were included in the series. It is expected that the proceedings and recommendations will be published in the autumn of 1977.

The Council has offered to provide a clearing-house for the exchange or purchase of materials and resources which are becoming available through the contraction and closure of colleges of education. It has also attempted to maintain links with college staff known to be active supporters of educational technology who are changing their place of employment as a result of the reorganization of teacher education.

Local education authority advisory staff

The Council has begun a series of consultative conferences for chief and senior local education authority advisers to acquaint them with the Council's work and to define the needs of advisory staff in relation to training in educational technology. From the meetings already held, useful advice has resulted on the guidance and support the Council could make available.

Major courses in educational technology

Contact continues to be maintained with those institutions offering major courses in educational technology. A seminar was held in January 1977 and, as before, provided a good opportunity for exploring issues of mutual concern to CET and to the course organizers. The third edition of the directory of major courses, *Courses Leading to Qualifications in Educational Technology*, appeared in February 1977. A further edition is in preparation.

Agricultural education

The Council has been approached for advice by both the staff associations and the Inspectorate for agricultural colleges, who are interested in pursuing activities likely to lead to a more effective use of resources and to staff development for agricultural education teaching staff.

Production of training materials

An independent evaluation has been completed of the effectiveness of the Council's published Support Materials for Course Organizers for use in courses on educational technology and the findings are proving useful in other exercises for the preparation of new materials for teachers and trainers.

The Council has collaborated in the preparation of materials for a new two-year educational technology certificate course being offered by the City & Guilds of London Institute. These are currently being evaluated and it is hoped will be more widely available during autumn 1977.

Work is in progress with Jordanhill and Dundee Colleges of Education to adapt their learning materials in educational technology so that they are available for more general use on initial and in-service training courses.

The Council is supporting eight universities and a polytechnic in the development of training materials aimed at improving the management and teaching skills of higher education staff. It is hoped to make the materials generally available in due course.

A training pack has been produced which provides both training and support to those members of staff of further education colleges who have responsibility for supervising or coordinating course submissions to the Technician Education Council. The Technician Educational Council has been involved at all stages of preparation. A series of local and regional workshops have been organized for further education staff on the effective use of the materials.

The Council is in consultation with the new Further Education Curriculum, Research and Education Development Unit on the training problems of tutors responsible for the new 'Holland' courses for the 16–19-year age group.

Workshops, conference and other 'active' training

The Primary Extension Programme, originally funded by the Bernard Van Leer Foundation to develop new approaches to the education of disadvantaged young children, ended in 1976 but the Council is continuing to support the dissemination phase for the Programme. It is responsible for the annual national course recall of PEP teacher leaders; it provides an information service for teacher leaders, and has prepared a training pack and film for use by them. Negotiations are in hand for the transfer of the training function of the Programme to two teacher training institutions, for

which the Bernard van Leer Foundation is continuing to provide some support.

Development of Learning Materials to Support the In-Service Education of Teachers

The Council is collaborating with three local education authorities in studies of the potentially extensive use of learning materials in in-service training. The exercise will be evaluated and regular reports made available to interested authorities and institutions. It is intended to last two years in the first instance. A discussion document outlining the scheme is available.

Research in Educational Technology

Following the completion of two surveys of the kinds of research that are of interest and value to innovators in the design and installation of learning systems, a steering group has been set up to commission the preparation of authoritative review papers on research relevant to specific areas of educational technology (in a 'popular' style) and the preparation of short operational guideline papers to introduce trainers and teachers to the applications of research findings to specific problems.

Training Activities for Support Staff

In its coverage of training provision for different categories of support staff, the Council has to date concentrated on librarians. The Study Group on Non-Book Materials in Librarianship Education has been concerned mainly with the development of an awareness amongst librarians of the implications for training in the use and handling of the newer media. The activities sponsored by the Study Group include:

(i) organization, with the Library Association and Aslib, of a joint seminar for senior policy-makers in librarianship on developments in the organization of non-book materials (November 1976, proceedings published by the Library Association, April 1977: *Developments in the Organization of Non-Book Materials*).

(ii) promotion, in collaboration with Library Association branches, of seminars on the development among librarians already in service of an awareness of new media, their role, handling and use in the library.

(iii) preparation of course guidelines on the general appreciation, specialist and post-experience aspects of the new media, which might be useful to library school lecturers and others in the preparation of their courses (*Media Awareness for Librarians,* CET 1977).

(iv) establishment of a pilot scheme to examine materials produced in libraries and schools of librarianship as aids in teaching the librarianship of the new media, and to investigate the possibility of their wider availability (report circulated during summer 1977).

(v) preparation of a *List of Lecturers and Consultants on Aspects of Non-Book Materials in Librarianship Education.*

This aspect of the Council's work will, from 1978, become the responsibility of the Library Association, who will service the consultative group representative of national policy-making organizations in librarianship education that is about to replace the Council's Study Group. The Council is particularly pleased with this development as an example of the Council fostering one project or area of work which, once it has grown sufficiently, can be passed on to another more specialized organization to maintain and develop.

A new area in which the Council is undertaking preliminary work is that of support of ancillary staff in schools.

Working Party C: *Resource Provision and Resource Management*

Resource organization in primary schools

A document on the organization of resources in primary schools has been prepared and is due to be

published shortly. Examples of existing good practice are given which, it is hoped, will help teachers to solve some of their resource problems.

Resource organization in secondary schools

Following the Council's work on resource organization in primary schools, a study has been initiated to examine resource organization in secondary schools. It is felt to be an appropriate time to re-examine some of the underlying assumptions, and to determine their applicability to current circumstances and problems. Investigators have been appointed in England and Wales, Scotland and Northern Ireland, to analyse current resource organization problems, and another to evaluate the literature and other sources of advice on resource organization.

Resource provision in teacher education

A working group, set up in 1976 to consider the provision of resources and support services necessary for initial teacher education, has drawn up a discussion document in the light of the current climate of economic stringency, institutional mergers and curriculum change. This is due to be made available shortly and consultative seminars are planned to follow.

Local authority support services for educational technology

A package of materials has been prepared, designed as an analytic tool to help a local education authority to improve the level and adequacy of support services, and their take-up. A trial package has been in use in a small number of authorities, and a revised version will be made available to all authorities late in 1977.

The compilation of lists of local resources

The Council is aware of the value of parts of the environment as a teaching resource, and recognizes the need for a systematic approach to the full exploitation of these local resources for teaching purposes. Consequently an investigator has been appointed to compile a handbook designed to help librarians, resource organizers, and teachers produce

their own lists of resources. Attention will be given to the best way of presenting the information to encourage full and appropriate use of local resources.

Guidelines for the production of select lists of learning materials

The Council recognizes the need for teachers and others to have basic bibliographic guidance on the production of their own catalogue/index to learning materials. It has, therefore, commissioned the compilation of guidelines which will help to solve the practical problems encountered when attempting to produce such lists.

Index of learning materials for biology

The Council has seen the importance of making available information on learning materials. As part of its work in this area the Council is cooperating with the Institute of Biology to provide a comprehensive index of catalogues, producers and distributors of learning materials for biology. The usefulness of this index will be evaluated after its publication in 1978 and consideration will be given to the potentials of such an index for other curriculum areas.

Continuing Mathematics Project

The development phase of this project, funded jointly with the Schools Council, ended in 1976. Materials to assist students in sixth forms, and elsewhere, whose specialist studies do not include mathematics, but who need to use mathematics in their studies were published by Longman on behalf of the Schools Council in 1977. The Schools Council has also established a team to disseminate information about the materials, and to promote their use. The Council is now involved in this dissemination phase.

Local radio archives as learning resources

Local radio in its general service broadcasts produces many programmes that seem to be usable as materials for schools and colleges, especially in relation to the study of the local environment. The Council, over an experimental period of one year, arranged for the selective recording on audio-cassettes of items

broadcast by BBC Radio Solent. These were then distributed on request to educational institutions within the reception area.

An objective evaluation of the scheme is now being undertaken to ascertain the degree of cooperation between Radio Solent and the local education authorities it serves, the usefulness of such a service on a regular basis, and the possible transferability of the scheme to other local radio areas. Initial reactions seem to indicate the usefulness of such a provision and the full report should be available towards the end of the year.

Use of local radio material outside transmission area

The Council believes that the programme output of BBC local radio stations could provide useful learning resources for teachers in schools outside the reception area of the local station. Four local radio stations were accordingly selected (Stoke, Medway, Sheffield and Derby) and a group of teachers in each area was asked to listen to as much of the broadcast material as possible, and to report which items would be, in their judgement, of interest to schools in other parts of the country. These comments are now being evaluated to see whether regional and/or national arrangements allowing distribution of local radio material on cassettes would be desirable.

Video-copying

The one-year pilot video-copying scheme designed to overcome the problems of incompatibility ended in December 1976. An evaluation shows that the service was not used sufficiently to warrant extension or expansion, apparently because the formats available under the scheme are now so common that most producing institutions were able to supply copies. Also, the current economic situation has encouraged the loan and exchange of tapes, rather than the sale, which is what the scheme was intended to facilitate. Alternative methods of encouraging the dissemination

of tapes are being investigated, and in the meantime the scheme is being retained in its present form.

Development of a national cataloguing service for audio-visual materials

As a result of a joint study with the Council (published as 'Working Paper 12') the British Library is setting up a two-year development study, part of which will be devoted to providing experimental services to a selection of educational organizations. The Council is concerned that the development study should take full account of the needs of education, especially as it is hoped that the study will lead to the establishment of continuing services. The Council has, therefore, with the agreement of the British Library, appointed an investigator to investigate user needs in detail.

Standards and Specifications

The User Specifications (USPECs), produced under the guidance of the Council's Working Party on Standards and Specifications (membership of which is given in Section IV) with the technical assistance of the Experimental Development Unit of the National Committee for Audio-Visual Aids in Education, are increasingly appreciated throughout education and training. They provide a useful and practical indication of the needs of the users of audio-visual equipment.

During the year considerable progress has been made on the drafting of USPECs on slide and filmstrip viewers, markerboards, video cassette/cartridge recorders and a code of operating practice for overhead projectors; and USPEC 17 on Headphones has been published. Revision of some of the earlier USPECs is being undertaken.

Members of the Working Party continue to play an active part in the work of committees of the British Standards Institution and the International Electrotechnical Committee. The matter of safe handling of audio-visual equipment is an important

area that is being looked into by the Working Party.

A mechanism for the evaluation of audio-visual equipment against USPECs is being investigated with a view to developing a cooperative drawn from the training, armed services and education sectors to be responsible for the preparation of evaluation reports to an agreed format for publication and dissemination.

Automation of information services and library procedures

The Council commissioned an investigation by Aslib into the potential contribution of automation to organizing resource services and providing information services in education and training. Detailed costing studies are now being planned in selected areas before the decision is taken to bring a major programme of work on the relative cost-effectiveness of automated and manual procedures.

The adaptation of learning spaces

A working group (whose membership is listed in Section IV) has been set up with the National Committee for Audio-Visual Aids in Education to identify and record examples of the adaptation of existing spaces to facilitate the preparation, organization and use of teaching and learning resources. A preliminary survey of institutions has been undertaken and interesting examples identified. It is intended to produce a document detailing the issues and problems involved in space adaptation, together with case studies and a list of caveats.

Media resources in curriculum development

It is a central part of the Council's concern to seek ways of creating practical working links between curriculum development and educational technology. The ways in which such links may be established are presently being explored in detail. This project is being run as a collaborative venture between the Council, the Scottish Council for Educational Technology,

and the Scottish Centre for Social Subjects, with the close involvement of the Scottish Education Department.

At the end of the study a report on the feasibility of these links will be produced, drawing out the implications for the United Kingdom as a whole.

Communications technology

Work has been concentrated on two main topics this year.

(1) The Council's reactions to the Annan Report on the Future of Broadcasting were submitted to the Home Office in July 1977. (See Appendix B).

(2) Following a survey of communications technology in education, the group organized a one-day seminar for senior policy-makers in education and training which was held at the Post Office Research Centre in April 1977. There were practical demonstrations of various developments in telecommunications technology which might have a significant effect on the organization of teaching and learning, such as audio and tele-conferencing, Viewdata, and the electronic blackboard.

Following this meeting, a feasibility study of potential uses of communications is being undertaken, concentrating specifically on narrow band-width services. The group is now planning to explore technical developments in general, with their educational implications.

Microforms in education

In July 1977 the Council in cooperation with the National Reprographic Centre for documentation published a handbook for teachers and educational administrators. It demonstrates the potential of microforms (microfilm and microfiche) in education. The book gives practical information about equipment,

materials, and the economics of microforms, brief case studies of current uses, and some suggestions of possible applications.

Copyright

In March 1977 the report of the Whitford Committee on the Law of Copyright and Designs was published. The Council's evidence was extensively quoted and the Committee accepted the Council's main recommendations. However, some of the proposals are less helpful and the Council submitted comments to the Board of Trade (see Appendix C).

The Council is convening a meeting of educational users to discuss whether a body should be set up to represent education in future negotiations with rights owners.

Discussions continue with the BBC and the independent broadcasting companies about limited permission for the off-air recording of general service programmes. The talks are being broadened to include representation from owners of copyright and performances.

A scheme to permit the copying of printed music has been drafted by the Council in consultation with the Music Publishers' Association and is currently being considered by interested bodies.

Another recent and significant development has been the publication of 'Guidelines 2', *Copyright Clearance: a practical guide.* This publication has been well received and is selling widely.

The coordination of support services for educational technology in Wales

After consultation with librarians and resource providers, chairmen of education committees and chief education officers in Wales, the Council set up a study to determine the nature of resource provision in the Principality, and to explore ways in which the provision might be rationally coordinated. The report

and its recommendations have now been made available to interested parties and the Council is planning to bring these bodies together to discuss further appropriate action.

Standing Conference of Area Resource Organizations

The Council has continued to provide office support for the Standing Conference of Area Resource Organizations.

I.5 PUBLICATIONS AND INFORMATION ADVISORY COMMITTEE

The Committee met three times during the year. At its June meeting it welcomed two new Council representative members, Mr J Price and Mrs L Hamilton, and agreed to invite three further coopted members to represent the views of industrial training, media resource organizers and the educational technology professionals.

Publishing policy

A radical review of the Council's publishing policy was made at the June meeting but the Committee saw no need for any major changes. The publications activity will therefore continue to aim to be self-supporting, taking one year with another, and to concentrate its resources on the publication of works arising from programme activities.

Bibliography of educational technology

At the annual meeting of the organizers of long courses in educational technology, held in January 1977, the Council asked for the cooperation of the institutions represented in producing a comprehensive and up-to-date bibliography of educational technology. The proposal which received general support aimed to draw upon the knowledge which lay behind the specialist educational technology collections already existing in the institutions concerned in order to

produce a number of bibliographies dealing with particular aspects of educational technology.

In June 1977 it was agreed that, as a pilot for the cooperative venture, four institutions should provide sample book lists, together with a critical review of the literature. These would be based on both teaching experience, and the stock held by the particular institution. Each list will be directly related to the institution's specialism within educational technology. The areas covered are learning structures and strategies; instructional management; individualized instruction; and learning environments. These first drafts should be prepared by November 1977 and the Council aims to report on progress of the scheme at the next meeting of the long course organizers early in 1978.

Publishing programme

During the year the Council has published five new books for sale and a considerable number of free pamphlets. Existing sets of materials have continued to sell well, with the 'Support Materials for Courses in Educational Technology' modules and 'The Design of Learning Spaces' tape/slides in particular exceeding original expectations.

Books

Guidelines 2
Copyright Clearance: a practical guide
Geoffrey Crabb
ISBN 0 902204-66-1 £2.25 Published 31 December 1976
The Council's expert on copyright has written a guide with an algorithm that leads anyone in education who copies or performs material to a decision about the need for copyright clearance. The book gives advice on the steps to take and people to approach in order to get clearance.

Guidelines 3
Reading Skills: a systematic approach
Elizabeth Hunter
ISBN 0 902204-67-X £2.25 Published 1 April 1977
Elizabeth Hunter is Senior Lecturer in Reading Development at the Avery Hill College of Education and was 1976–77 President of the United Kingdom Reading Association. Her book provides teachers with practical guidance in the matters of educational objectives, the analysis of reading skills into hierarchies, methods, materials and evaluation. As an appendix to the book, extracts are given from three Inner London Education Authority schools' language teaching policies.

Towards Individualized Learning for Teacher Education
Ann Lickley
ISBN 0 902204-70-X £2.75 Published 29 April 1977
This history of the development of a new approach to teaching students at the new Dundee College of Education is a book that has relevance for all who are interested in individualizing learning. It constitutes the first element of the Dundee Case Study that the Council is compiling.

Costs of Education in the United Kingdom
P K Pearson
ISBN 0 902204-71-8 £2.50 Published 24 June 1977
This report through statistical analysis provides a mine of information for everyone concerned with the way in which educational budgets have been spent over the past decade.

Working Paper 13
Microforms in Education
Bernard Williams and Richard Fothergill
ISBN 0 902204-72-6 £1.50 Published 29 July 1977
This working document provides extensive information on the various micro-media available for use in

education and gives advice on their suitability for different purposes. A number of 'case studies' have been supplied by people in varying types of educational institutions to illustrate the potential of microforms.

Free publications

The Council has produced the following free publications in addition to a large range of information and publicity leaflets.

Media Awareness for Librarians: course guidelines

Courses Leading to Qualifications in Educational Technology

Educational Technology Courses for Teachers in Training: a discussion document

The Place of Educational Technology in Teacher Education: a personal view

Materials as Aids for Teaching the Librarianship of the Newer Media: report and recommendations

The Generation and Use of Learning Materials for the In-Service Training of Teachers: a discussion document

Feasibility Study on the Coordination of Support Services for Educational Technology in Wales: report and recommendations

Journal

C J Duncan of the University of Newcastle-upon-Tyne has continued to edit the *British Journal of Educational Technology* which is owned and distributed by Councils and Education Press Limited. Its international circulation of about 1500 copies has been maintained. Volume 8 has appeared with a new cover and layout, with the index to Volume 7 being bound in the third issue. The third issue was devoted to papers on the

National Development Programme in Computer Assisted Learning, the Programme's Director, Richard Hooper, being the guest editor.

Distribution of publications

Councils and Education Press continued to distribute the *Journal* and the Council's books until 15 September 1977, when the Council undertook the distribution of its own books. Audio-visual materials are distributed by the National Audio-visual Aids Library, and *PEP Pattern Packs* are produced and distributed by Educational Productions Limited.

When CET was established in 1973, it took over the arrangement made by the former NCET under which its publications were distributed by Councils and Education Press Limited. That company, formerly owned by the Association of Education Committees, was taken over in August 1977 by a commercial group who indicated that they did not wish to continue the distribution arrangement for more than a short period. The Council has, therefore, made new arrangements from September 1977 under which it will handle its own book orders, using the services of a distribution agency in St Albans, Herts. In future, therefore, all orders and inquiries for CET books should be sent direct to the Council at 3 Devonshire Street, London W1N 2BA.

Information activities

With the appointment of an Administrative Assistant (Information) in April 1977 it has been possible to step up the information service provided internally for staff and Council and Committee members and to prepare the ground for setting up the storage and retrieval system for information about examples of the application of educational technology. No attempt will be made to include in the data bank full coverage of books and articles about educational technology, since this information is increasingly becoming available through a number of computerized systems and

also through the cooperative bibliographies scheme described above. To provide maximum flexibility, a post-coordinate system is being used, and the features list has been derived from the classification prepared last year.

Exhibitions and conferences. Special displays have been mounted at the ETIC '77 Conference at the University of Surrey in April and at the British Association for Commercial and Industrial Education conference on Learning and Industrial Training in July. These were designed to relate very closely to the themes of the two conferences. More general displays were presented at the annual conferences of Aslib, the National Educational Closed-Circuit Television Association, and the National Conference of Teachers' Centre Leaders. There was a display of publications at the conference of the Society for Academic Gaming and Simulation in Education and Training, and a special sales display of 'Guidelines 3', *Reading Skills*, at the United Kingdom Reading Association conference. A tape/slide programme on the Council's Training Support activity was prepared for ETIC '77 and used again at the conference of teachers' centres leaders.

Information leaflets. Towards the end of the year a start was made on redesigning the Council's basic series of information leaflets. Three new leaflets are already in print, including the publications list, the leaflet describing the Council and its work, and the leaflet about training support activity. Two further leaflets are in preparation and the series will be completed in the coming year, to cover the full range of the Council's activities.

Promotions. More than fifty teachers' centres accepted the Council's offer of display copies of appropriate CET publications on permanent loan for exhibition in the centres. Supplies of leaflets and publications for

display have been provided for courses, workshops and seminars run by the Department of Education and Science, the Library Association and many other organizations and institutions.

Particularly wide distribution was given to leaflets describing three new publications: *Copyright Clearance, Reading Skills,* and *Costs of Education.*

Press contacts. Five press releases were issued during the year, relating to the Annual Report, the Martlesham seminar on developments in communications technology, *Costs of Education* (which has aroused interest beyond the educational press).

Articles. Articles by the Director and members of staff have appeared in the *British Journal of Educational Technology,* the *Journal of Educational Television, Nursery Times, The Listener, The Times Educational Supplement.*

Conferences. The Director was invited to make the closing speech for ETIC '77 and other members of staff have accepted invitations to speak at conferences organized by the British Universities Film Council, the Library Association AV Group, the Scottish Council for Educational Technology, and the British Council.

Information network. As a result of a proposal made at the Conference of Participating Bodies for the training for employment sector in January 1977, discussions have been taking place between CET and TSA to assess the feasibility of setting up a central reference agency through which inquiries about educational technology in the training sector could be referred to the appropriate information source. These discussions are still at a relatively early stage.

I.6 INTERNATIONAL ACTIVITIES

The Council continues to play an important role in the Council of Europe's European Documentation and Information System for Education (EUDISED) and as a development from earlier studies is now involved in the creation of a European Information Network for Audio-Visual Teaching Aids. Representatives from the national agencies active in the field of audio-visual teaching aids in member states met in Strasbourg in June 1977 to discuss the procedure for setting up the network. Such a network would enable an inquirer in one of the member states to locate an audio-visual teaching aid to meet his specific requirements that might exist elsewhere in Europe. He would request information from his national network agency, who in turn would transmit the inquiry to the national network agencies in other countries; those items judged suitable would then be reported back to the inquirer via his national network agency.

In March 1977, International Council for Educational Media (UNESCO) and EDUTEL Communications and Development organized a seminar in Washington, USA, on 'The Economics of the New Media: Present Situation of Research'. The objectives of the seminar were to create a permanent network for the exchange of information on the economics of media; to contribute to the transfer and generalization of methods perfected; and to advise as to the orientations to be given to a programme of international activities in this field. CET was asked to participate in the seminar because of its current research into the cost-effectiveness of educational technology in the United Kingdom. It is understood that, following publication of a report of the seminar, further studies will be organized by UNESCO.

II
EDUCATIONAL TECHNOLOGY AND THE SOCIAL AND ECONOMIC PRESSURES ON EDUCATION

II EDUCATIONAL TECHNOLOGY AND THE SOCIAL AND ECONOMIC PRESSURES ON EDUCATION (REPORT OF THE COUNCIL'S CONFERENCE AT STIRLING)

Since its formation the Council has held a two-day residential meeting every two years in order to look in greater depth at its overall aims. At the first such meeting (Warwick University 1973) the main focus was naturally on the way the Council should operate, and its relations with other bodies. At the second residential meeting (at York University, 1975) the concentration was on the direction the Council's work should take; the current programme represents the implementation of the guidelines drawn up at York.

This year, at Stirling University, the Council looked at the economic and social pressures likely to bear on education and training over the next decade, assessed the likely response of education to these pressures and the particular consequences for those concerned with promoting and encouraging educational technology. We all know that predictions of the future are fallible, even when they are ostensibly based on the application of apparently rigorous statistical methods to such relatively objective data as population statistics. How much more fallible are any attempts to define the social and economic pressures over a decade?

Yet the attempt must be made, simply because aims have to be set and plans implemented which will come to fruition over a number of years. And since this is true for most activities, the conclusion can be drawn that the social and economic influences now, and the general attitudes associated with them, will in fact shape to a great extent the changes in education and training over the coming years. The social and economic influences of five to ten years from now,

which we cannot predict, are more relevant to the following decade.

Thus the Council at Stirling saw itself working in a world in which there is persistent pressure to change, extend and improve the education and training provision with, at the same time, continued restriction of financial resources. Solutions would need to stem from redistribution of resources, not from their increase; educational technology should play an important role in achieving such solutions. However, at that time the techniques which the Council was developing were not being seen as central to the process of education. Only in the training field was there any acceptance of the need for training design and technology to be considered as an integral part of the basic decision-taking when new projects were being formulated. The Council had not so far been successful in ensuring that the *majority* of those engaged in the education service understood that educational technology, which is directly concerned with the management of teaching and learning, was far from being an optional extra, but needed to be brought into all discussions of curricular and administrative change. Nor was the Council being sufficiently valued for the advice and guidance it could give at the national decision-taking level.

Whilst recognizing the reality that education and training took place within administrative boundaries which could be crossed only with the greatest difficulty, the Council was in a unique position, by virtue of its representation of all sectors of the service, to enable the lessons learned in one sector to be applied in others. It was through the Council that the experience of the armed forces in bringing training into the earliest stages of project planning could be brought to the notice of educational planners, that discussion of extending the use of existing public

library facilities to improve those available for education could take place, that a successful method of encouraging infant school teachers to cooperate in the production of structured teaching material could be transferred to further education.

Both at Stirling and at the seminar at Martlesham (April 1977) the Council looked at the implications for education and training of new communications development. While particular technological developments are interesting in themselves, the important consequence of the range of developments coming forward is that they offer the opportunity for the education and training process to be adapted to match more closely the requirements of the pupil. Speaking not of any special high technology but of systems which are going to be available in the near future as ordinary domestic services – such as current audio and video recording techniques, the various teletext services, and a wider use of the telephone network – it is possible, by applying available technology to well defined education and training purposes, to think in terms of arrangements very different from those which involve the formation of a class with a common learning aim, meeting in a specified place at a specified time. These arrangements, which may also be quite different from centralized open learning systems of which the Open University is the outstanding example, require changes in teacher attitude, and the development of appropriate study skills in the pupils. The extended in-service training programme which is seen as a high priority for a variety of reasons (not least the relatively low input of new teachers) is likely to be school-based, and as such should use the methods of educational technology in order to be effective and at the same time to help teachers appreciate the operation of new methods. In the same way, the training of pupils in study skills for new methods, many of which involve independent

learning, should involve the use of those methods.

The Council sees the next few years as having a definite need for a positive approach to the solution of the problems of improving the education and training provision in an unfavourable climate, the positive approach set out in its pamphlet *Educational Technology in a Time of Economic Stringency* (incorporated in the last Annual Report). It reaffirms the guidelines set out in its 1975 Report; and the six points listed below identify aspects which, in the Council's view, deserve particular emphasis at the present time.

The Council should aim to:

(i) improve understanding of, and justification for, the concepts of educational technology
(ii) develop a systematic approach to high-level educational planning and ensure that the role and contribution of the Council to such planning are appreciated by the Government and the education and training services
(iii) develop the contribution of educational technology to job-focused induction and in-service training for teachers
(iv) provide strategies, methods and information as tools to help educational decision-takers
(v) mount demonstrations of educational technology especially where problems of student motivation are difficult and in subjects where the applications are not obvious
(vi) influence the practices of examining, validating, and professional bodies, particularly in order to improve the feedback to individual teachers and trainers.

III
RECEIPTS AND PAYMENTS ACCOUNTS

III COUNCIL FOR EDUCATIONAL TECHNOLOGY FOR THE UNITED KINGDOM RECEIPTS AND PAYMENTS ACCOUNT FOR THE YEAR ENDED 31 MARCH 1977

	Receipts 1977 £	1976 £
General grants received		
Department of Education and Science	308,350	254,710
Scottish Education Department	19,752	16,700
Department of Education, Northern Ireland	5,141	5,200
Interest received (gross)	17	315
Management charge - Computer Learning Project	4,000	4,000
Publications, royalties and other sales	8,973	12,695
Miscellaneous receipts	240	203
TSA - fee for payments to BACIE	2,875	–
	349,348	293,823
Grants received for special projects		
Continuing Mathematics Project		
- various sources	2,150	26,936
- interest thereon	629	3,900
Primary Extension Project		
- Bernard van Leer Foundation	–	18,060
- interest thereon	862	564
Working Mathematics Group		
- various sources	16,200	–
- interest thereon	27	–
	19,868	49,460
Department of Education and Science - contribution towards purchase of leasehold premises	80,000	80,000
	449,216	432,283

Bank balances and cash at 1 April 1976/1 April 1975	779	15,647
	£449,995	£438,930

	Payments	
	1977	1976
	£	£
CET activities	119,360	85,403
Accommodation	24,232	24,696
Legal and professional	–	9,688
Salaries	131,898	115,058
Travel and subsistence		
- non-staff	7,847	9,295
- staff	3,267	3,598
Stationery, books and subscriptions	3,506	4,216
Postage and telephone	7,339	6,655
Staff training and recruitment	1,796	4,234
Auditors' remuneration	1,226	464
Duplicating	4,181	4,119
Costs of publications and other sales	25,274	23,832
Promotion	14,050	12,492
Capital expenditure on office equipment and fittings	2,900	4,941
	346,876	308,691
Transfers to special projects	19,868	49,460
Payment towards purchase of leasehold premises	80,000	80,000
Additional payment towards purchase of leasehold by CET	2,500	–
	449,244	438,151
Bank balances and cash at 31 March 1977/31 March 1976	751	779
	£449,995	£438,930

IV
MEMBERSHIP OF COUNCIL, COMMITTEES, STEERING COMMITTEES, WORKING GROUPS AND STAFF

IV MEMBERSHIP OF COUNCIL, COMMITTEES, STEERING COMMITTEES, WORKING GROUPS AND STAFF

COUNCIL

Alphabetical List of Members by Organization

Mr F J Hill, CBE *(Chairman)*

Association of County Councils

Mr F Hallworth, OBE
Mr J G Owen

Association of Education Committees

Lord Alexander
Mr T Taylor, CBE, JP

Association of Metropolitan Authorities

Mr R J Hartles
Mr E D G Robinson

Association of Principals of Colleges

Dr H T Taylor

Association of University Teachers

Professor L R B Elton

British Broadcasting Corporation

Mr D Grattan

Committee of Directors of Polytechnics

Mr D P Bethel

Committee of Vice-Chancellors and Principals

Professor J Black
Dr H Kay
Mr R C MacLean

Educational Foundation for Visual Aids

Mr G C Marchant

Headmasters Conference

Mr J A Boyes

Incorporated Association of Assistant Masters

Mr A W S Hutchings, CBE

Incorporated Association of Assistant Mistresses

Mrs L Hamilton

Independent Broadcasting Authority

Mr B Groombridge

Industrial Council for Educational and Training Technology/British Educational Equipment Association

Mr E M Arnold
Mr R Watson

Industrial Training

Mr J Edgar
Mr G J Morris
Mr P Rosenfeld

Inner London Education Authority

Professor E W H Briault, CBE

Jointly for the Incorporated Association of Headmasters and the Incorporated Association of Headmistresses

Mr J Price

National Association of Head Teachers

Mr A Pendlebury-Green

National Association of Schoolmasters/Union of Women Teachers

Mr M Calvert
Mr D L Davies

National Association of Teachers in Further and Higher Education

Mr D J Harris
Mr J W Mansell
Dr H J Peake, CBE

National Institute of Adult Education

Mr B Cairns

National Union of Teachers

Mr C B Johnson
Mr D N McAvoy
Mr D I Morgan
Mr J O Murphy
Mr C L West

Nominated by the Secretaries of State

Mr J H Embling, OBE
Dr B J Enright
Sir Brynmor Jones
Mr J S Meldrum
Mrs E Rowlands
Miss A Shrubsole

Open University
Professor D G Hawkridge

Schools and Further Education, Northern Ireland
Dr W F K Kerr

Schools and Further Education, Scotland
Mr J Forrester (deceased)
Mr A I MacNab
Mr P C McNaught
Mr N MacNicol

Scottish Council for Educational Technology/ Scottish Film Council
Mr R B Macluskie

Welsh Joint Education Committee
Mr J H Davies

Ex-officio
Mr M J Gifford

Alphabetical List of Assessors by Department

Civil Service Department
Mr B T Gilmore

Department of Education for Northern Ireland
Mr N Morrison, HMI

Department of Education and Science
Mr R H Bird
Mr M Edmundson, HMI
Mr K W Morris

Department of Health and Social Security
Mr T T Payne

Department of Industry
Mr B R Taylor

Manpower Services Commission
Mr T R Clendon

Ministry of Defence
Air Commodore H A Probert

Schools Council
Mr M Plaskow

Scottish Education Department
Mr J G Morris, HMCI

University Grants Committee
Miss M J Darby

Welsh Education Office
Mr G Evans, HMI

EXECUTIVE COMMITTEE

Mr F J Hill *(Chairman)*
Lord Alexander
Mr D P Bethel
Professor J Black
Professor E W H Briault
Mr M Calvert
Mr J H Davies
Mr J H Embling
Mr B Groombridge
Mr F Hallworth
Mr A W S Hutchings
Dr W F K Kerr
Mr D N McAvoy
Mr R B Macluskie
Mr P C McNaught
Mr J W Mansell
Mr A Pendlebury-Green
Mr E D G Robinson
Mr P Rosenfeld
Dr H T Taylor
Mr R P Watson
Mr M J Gifford *(coopted as Chairman of Sector Requirements Committee)*

Mr T Taylor *(alternate)*
Mr D Mortimer *(observer)*
Mr R C MacLean *(alternate)*
Mr L F Ryder *(observer)*
Mr I C Jones *(observer)*
Mr D Grattan *(alternate)*
Mr J G Owen *(alternate)*
Mrs L Hamilton *(alternate)*
Mr G C Marchant *(alt.)*
Mr N MacNicol *(alternate)*
Mr R J Hartles *(alternate)*
Mr G J Morris *(alternate)*

SECTOR REQUIREMENTS COMMITTEE

*Mr E M Arnold
*Mr D P Bethel
*Mr B Cairns
Mr M W Carter
*Mr D L Davies
*Mr J Edgar
*Mr M J Gifford
*Mr F Hallworth
*Mr D J Harris
*Mr A W S Hutchings
*Mr R B Macluskie
Mr G Paton
Mr M Roebuck
*Mr P Rosenfeld
Mr C C Roxburgh
*Miss A Shrubsole
Mr G M Wilkinson

*Member of Council

STEERING COMMITTEE FOR INNOVATION AND DEVELOPMENT

*Professor E W H Briault *(Chairman)*
*Professor L R B Elton
*Mr J H Embling
*Dr B J Enright
Mr J Foster
*Mr R J Hartles
*Professor D G Hawkridge
Mr F H P Lewer
*Mr A I McNab
*Mr N MacNicol
*Mr J Mansell
Dr G D Moss
*Mr J G Owen
Mr L E Page
*Dr H J Peake
Mr L F Ryder
*Dr H T Taylor
*Mr R P Watson
Mr B R Webster
Mrs P A Woodfine

Coopted as Working Party Members
Mr E M Broome
*Mr J H Davies
Commander B D Dear
Mr I J Halliday
Mr M L MacKenzie
*Mr P C McNaught
*Mr J S Meldrum
*Mr A Pendlebury-Green
Mr M Roebuck, HMI
Mrs J S Ward

*Member of Council

WORKING PARTY ON EDUCATIONAL POLICY-MAKING, ADMINISTRATION AND MANAGEMENT ('A')

*Professor E W H Briault *(Chairman till February 1977)*
*Mr J G Owen *(Chairman from February 1977)*
*Mr J H Davies
Commander B D Dear
*Professor D G Hawkridge
Mr J L MacKenzie
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Mr B Sheppard
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Mr A Thompson
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Local Radio Archives as Learning Resources: Radio Solent

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V

REGISTER OF PARTICIPATING BODIES

V REGISTER OF PARTICIPATING BODIES

Section 1: National Bodies

National Committee for Audio Visual Aids in Education
Northern Ireland Committee for Educational Technology
Scottish Council for Educational Technology

Section 2: Organizations Nominating Members to the Council

Association of Assistant Masters
Association of Assistant Mistresses
Association of County Councils
Association of Headmasters
Association of Headmistresses
Association of Metropolitan Authorities
Association of Principals of Colleges
Association of University Teachers
British Educational Equipment Association
British Broadcasting Corporation
Committee of Directors of Polytechnics
Committee of Vice Chancellors and Principals
Educational Foundation for Visual Aids
Headmasters Conference
Independent Broadcasting Authority
Industrial Council for Educational and Training Technology
Inner London Education Authority
National Association of Head Teachers
National Association of School Masters/Union of Women Teachers
National Association of Teachers in Further and Higher Education
National Union of Teachers
Open University
Welsh Joint Education Committee

Section 3: Organizations Accepted by the Council as Participating Bodies

Agricultural Training Board
Air Transport and Travel Industry Training Board
Arels Examinations Trust
Aslib Audiovisual Group
Association of Agricultural Education Staffs
Association of British Correspondence Colleges
Association of Colleges for Further and Higher Education
Association of Polytechnic Teachers
Association for Programmed Learning and Educational Technology
BLAT Centre for Health and Medical Education
British Association for Commercial and Industrial Education
British Educational Equipment Association
British Gas Corporation, Education and Training Department
British Universities Film Council
Carpet Industry Training Board
Central Committee of Teachers Visual Aids Groups
Central Council of Advisers in Audiovisual Education
Centre for Information on the Teaching of English
Christian Education Movement
Civil Service Department
Committee of Principals and Directors of Central Institutions (Scotland)
Communication, Advertising and Marketing Education Foundation
Construction Industry Training Board
Economics Association
Educational Institute of Scotland
Electricity Supply Industry Training Committee
Food Drink and Tobacco Industry Training Board
Footwear, Leather and Fur Skin Industry Training Board
Foundry Industry Training Committee

Geographical Association
Headteachers Association of Scotland
Hotel and Catering Industry Training Board
Institute of Data Processing
Institute of Medical and Biological Illustration
Institute of Personnel Management
Institution of Training Officers
Iron and Steel Industry Training Board
Joint Services Committee for Educational Technology
Library Association
Local Government Training Board
Man-made Fibres Producing Industry Training Board
Medical Recording Service Foundation
Merchant Navy Training Board
National Council for Special Education
National Educational Closed-Circuit Television Association
National Institute of Adult Education
National Inter-College Committee on Educational Technology
Network of Programmed Learning Centres
Paper and Paper Products Industry Training Board
Road Transport Industry Training Board
School Broadcasting Council for the United Kingdom
Schools Council for Curriculum and Examinations
Scottish Association of Educational Technology Advisers
Scottish Business Education Council
Scottish Centre for Mathematics, Science and Technical Education
Scottish Council for Research in Education
Scottish Field Studies Association
Scottish Institute of Adult Education
Scottish Library Association
Service Children's Education Authority
Society for Academic Gaming and Simulation in Education and Training
Standing Conference on Educational Development Services in Polytechnics

Technician Education Council
Training Services Agency
UCAC (National Association of the Teachers of Wales)
Workers Educational Association

APPENDIX A
COMMENTS ON 'THE GREAT DEBATE'

A LETTER FROM THE CHAIRMAN TO THE SECRETARY OF STATE FOR EDUCATION AND SCIENCE COMMENTING ON 'THE GREAT DEBATE'

To the Rt Hon Mrs Shirley Williams, MP

'SCHOOLS IN ENGLAND AND WALES: CURRENT ISSUES'

1 You will recall that you were the guest of honour and principal speaker at the initial conference of our predecessor, the National Council for Educational Technology, at Greenwich in 1968. From your interest in that Council's work, and your sympathy with it, you will appreciate that educational technology has an important contribution to make to the debate which you are initiating. The new Council, in this letter, offers its first observations on some of the topics which are likely to figure in that debate. The Council would also like to remind you that it is essentially a development agency; as the debate proceeds and certain aims and tasks for the education system emerge, the Council is well placed to assist further and we very much hope that our services will be used.

2 For educational technology to improve teaching or learning, it requires the application of resources. These resources are, for the most part, already available; the question is how best to redeploy them and make use of them in support of the aims which this debate will identify. This is the question to which the Council continually devotes attention, and it can point already to a range of examples and approaches which do not require major additional expenditure.

3 *Teacher training*

3.1 The Post-Graduate Diploma in Educational Technology currently being operated by Jordanhill College of Education is an example of the effective use of existing training facilities in more locally based in-service training of teachers.

3.2 We hold that such distant learning techniques should play a more significant part in future arrangements.

4 *Teaching methods*

4.1 Whether teaching takes place in formal or informal situations is probably less important than whether it is structured or unstructured.

4.2 Teachers can be helped to structure their teaching by the provision of structured learning materials.

4.3 Means of assessment can be built into structured learning systems.

4.4 Remedial teaching is bound to benefit by being more carefully structured.

5 *Schools and working life*

5.1 One important aim must be to improve the understanding by school-leavers of the world of work; another must be to improve the match between what is taught in school and what is used at work.

5.2 The Working Mathematics Group (derived from the Council's Continuing Mathematics Project) is funded by contributions from a number of industrial and commercial enterprises and already the resulting partnership between teachers, industry and commerce is promising to promote the necessary concepts combined with the relevance sought by present-day employers.

5.3 Our belief is that more work should be encouraged along these lines and that subjects other than mathematics should be included.

6 The Council has already issued a clear statement *(Educational Technology in a Time of Economic Stringency)*, a copy of which was sent to your predecessor on 8 March 1976. Since then, the economic situation has had even graver effects on the work of our universities, colleges and schools and there is even more need, we say, to foster the intelligent application of educational technology, because it is concerned essentially with the proper and full use of all educational resources, human and material, for the purposes of education and training.

7 Thus, this Council, more broadly based than its predecessor and more closely linked with all sections of education and training, urges on you the importance of its being fully involved in the current debate and the developments which should follow from it. We wish to assure you of our willingness and our readiness to contribute to the important work you are putting in hand.

MEMORANDUM FROM THE DIRECTOR TO DES ON THE GREAT DEBATE: FORTHCOMING GREEN PAPER

General comments

The headings for the Green Paper appear to exclude any discussion of how the curriculum, or a core curriculum if agreement were to be reached on one, is to be taught. There is a considerable danger, which was apparent at some of the regional meetings, of too many statements of what pupils should learn, unsupported by proven ways of teaching it to the whole ability range.

Heading 3

Different organizational patterns and attitudes in schools may lead to difficulties at transfer, but these

are exacerbated if pupils and teachers are not clear what has been learned. Positive statements of course objectives and attainments, coupled with the availability of diagnostic tests matched to remedial material, can help to make transitions manageable.

Heading 8
Structured learning systems, which set defined objectives and incorporated properly designed assessment of whether those objectives had been reached, would both enable national standards to be expressed through the design and testing of the system, and measure the achievement of the individual pupil in terms of his progress through the system rather than requiring an expensive separate external examination system.

It is also important to provide a range of diagnostic tests linked with structured materials. A wide range of structured material already exists, as do some diagnostic tests. But what has still to be done is the matching of tests and materials, so that the teacher, having identified a pupil's particular weakness, can find suitable remedial material. An exercise of this nature would probably show up some gaps in the available material, which would need to be filled. This indicates a considerable programme of work, to which the talent and capacity becoming available in the colleges of education could make an important contribution.

Heading 14
The Post-Graduate Diploma in Educational Technology currently being operated by Jordanhill College of Education is an example of the effective use of existing training facilities to provide in-service training of teachers without the necessity for their prolonged full-time secondment.

We hold that such distant learning techniques should play a more significant part in future arrangements, as might the collaborative development of course materials by the existing training agencies within LEAs.

Such local provision could be supplemented by a course offered on a national basis through the Open University, which would be especially effective if systematic arrangements were made for local follow-up along the lines already being employed for the OU's course in language development.

The Secretary of State has already announced special conversion courses for shortage subjects. The design of these courses offers an opportunity for applying educational technology methods to the provision of an effective course structure and materials. Not only is it essential that the trainee should learn through structured methods which he himself may adopt in his teaching; he should be made aware of established systems, such as the Kent Mathematics Project, which he may be encouraged to adopt.

Heading 15

In addition to the management of teachers, consideration should be given to the management of learning. Mixed-ability teaching and resource-based learning make special demands on the headteacher and his staff for careful organization, as the Secretary of State has publicly recognized. Accordingly, CET has a team looking at the problems of the management of learning. Even at this early stage they have accumulated a number of interesting case studies which have identified significant issues.

Many headteachers need up-dating in educational technology, and guidance in extending their skills. We therefore believe that management courses for

headteachers should include a substantial element on the management of educational technology. Accordingly, we have drafted and are currently piloting guidelines for course organizers. We plan to supplement these with self-study materials for heads who cannot attend courses.

Heading 17
Any development of careers guidance will need a well-organized and readily up-dated information system, which could be provided through existing local computer networks.

APPENDIX B

COMMENTS ON THE REPORT OF THE COMMITTEE ON THE FUTURE OF BROADCASTING

B COMMENTS ON THE REPORT OF THE COMMITTEE ON THE FUTURE OF BROADCASTING

The Council's evidence to the committee was published in the Annual Report for 1974–1975, and oral evidence was recorded in the Annual Report for 1975–1976.

Annan Report reference	**I Recommendations relating to the fourth channel and educational broadcasting on the national networks**	*CET Evidence reference*
30.4	1 *The Council welcomes* the Committee's recommendation that all educational broadcasting should not be concentrated on the fourth channel, and that all national services should carry some educational broadcasts. This is in line with the Council's views expressed in its evidence.	4.6.1 4.6.2
19.7	2 *We also welcome* the Committee's recognition of the need for additional air time, particularly for adult education, including the Open University- and 'Open College'-type developments, and the needs of the 16-to-19-year-olds.	
30.7 128 129	3 The Council notes that the Open Broadcasting Authority proposed by the Committee is intended as a publisher of programmes prepared by others, and would be advised by teachers and others involved in the production of educational resource material. The Report also calls for closer liaison between the broadcasting authorities on the coordination of educational programmes.	
19.29	4 These recommendations make all the more remarkable the rejection by the Committee of	4.3

Annan Report reference		*CET Evidence reference*
126	our proposal for a national educational communications body, which would achieve just what the Committee has called for. *We do not think that the Committee has advanced convincing reasons for its rejection of the proposal,* which was prepared after wide consulatation with the major interests in education and training, including the local authorities. It closely parallels proposals by the BBC, the NUT and the TUC, and *we urge that it is given further consideration.*	4.5.3
	5 It is important to distinguish between the Committee's discussion of ways of operating the fourth channel, which leads to its proposal for an 'Open Broadcasting Authority', and our proposal, which is linked with our strong preference for continuing educational provision on all channels and is not dependent in any way on the provision of the fourth channel. A national educational communications body could function perfectly well in relation to the current educational provision on the existing channels and could extend its activities to any new channels (including both the fourth	
15.31	television channel and the additional VHF radio channel) as and when they were made available.	4.6.2
	6 The essence of our proposal is the creation of a body to coordinate production and distribution of educational material, which would	
	(i) have rights of access to distribution facilities, particularly the broadcasting channels (ii) allocate available distribution facilities to meet educational programme needs	

Annan Report reference		*CET Evidence reference*
	(iii) coordinate production of materials by broadcasters, commercial producers, and educational institutions (iv) have funds with which to contribute to or commission educational productions (v) conduct research on the effectiveness of educational broadcasting. The major source of programmes would continue to be the national broadcasters, commercial producers, and educational institutions and authorities. However, the capacity to commission programmes itself, on a limited scale, would enable the body to demonstrate and test in the market its own view of what education requires.	
	7 It is an integral part of the concept that the body should also be active in encouraging the distribution of educational material by non-broadcast means and that, in contra-distinction to what the Committee claims to be our tradition in broadcasting, everything made by broadcasters need not be broadcast; nor need everything broadcast be made by the broadcasters; which seems to be in line with the	3.6 5.3
19.25	Committee's concept of an Open Broadcasting Authority as a publisher of other people's programmes.	
	8 Putting the allocation of all educational broadcasting time under one body, representative of the users, should be preferable to the	
19.31- 19.36	present structures, where comparable groups exercise a partially advisory, partially regulatory function separately in relation to the educational output of the BBC and the independent companies. It should also lead to more efficient employment of the available commercial,	

Annan Report reference		*CET Evidence reference*
	educational and broadcasting resources. Teachers in all sectors of education and training would continue to have the freedom to accept or reject broadcasts as they think fit; more significantly, our proposal would increase their power to influence what is produced and when and how it is distributed.	
	9 *The Committee's objection, of the difficulty of adjusting to the different school system in Scotland, is a minor one* which CET, as a UK body, can ensure will be borne in mind.	
	10 Since the publication of the Report, members of the Committee have referred to some form of Public Review Board as being a method of monitoring general broadcasting provision. Such Review Boards, with their complaints procedures and quasi-judicial functions, may well be necessary to provide a retrospective appraisal of what has been done or not done. This is quite different from the concept of a national educational communications body, which would be concerned with ensuring continuing adequate and efficient provision of programmes and appropriateness of distribution.	
19.29	11 The Committee refers to the evidence as being somewhat vague on finance. The evidence from CET intentionally did not consider the source of finance for the proposed body, but stated that *we would expect to play a major part in working out the detailed implications of our proposals*. This would include making specific suggestions on finance.	6

Annan Report reference

II Local broadcasting

CET Evidence reference

12 In our view the Committee has failed to recognize the very significant and original educational contribution of the BBC local radio stations, which, we note, do not yet exist in Scotland. This contribution has taken a variety of forms, to match local requirements, and has commanded the enthusiastic support and cooperation of many local authorities and teachers. (See the BBC Memorandum 'Education and Broadcasting', para 14, Appendix C para 4, Appendix E para 5.)

3.10

Chap. 14

13 Independent local radio makes no comparable contribution, and the Committee's proposal to remove from the BBC the right to run local stations, coupled with the proposal that local radio should derive its main income from advertising, would be likely to lead to there being no educational element in local radio, unless a statutory requirement were imposed. *The Council therefore supports the notes of dissent* by Mr Jackson and Miss Laski and the footnote (page 207) recording the view of Mr Lewis.

14.7

III Copyright

14 The Report assumes that the implementation of the Report of the Committee to consider the Law on Copyright and Designs (under Mr Justice Whitford) would remove all difficulties on this score. Unfortunately, this is not the case. For example, unless the provisions the Whitford Committee recommends in relation to rights owners are also applied (contrary to the recommendations of the Whitford Committee) to performers' rights,

3.12
5.8

Annan Report reference

there could still be serious difficulties over the recording of general service broadcasts for educational purposes. CET will submit a memorandum of comment on the Whitford Report to the Department of Trade later this summer.

CET Evidence reference

IV Research

19.10

15 *We endorse* the need for more research into the effectiveness of educational broadcasting and suggest that this could be undertaken in part under the auspices of the proposed national educational communications body (see 6 (v)).

V Technical aspects

16 If a Telecommunications Advisory Committee is set up along the lines recommended, *CET should be enabled* to participate in its work.

17 No reference is made in the Report to the licensing of microwave frequencies for experimental Instructional Television Fixed Services. *We believe* that such services, which have proved useful in the USA, should be allowed in the UK where conditions permit.

3.11
4.6.4

19.17

18 *We differ* from the Committee on the likely rate of advance in video-recording and automatic time-switched recording, which is currently practised in many institutions. The rate of technical advance is rapid; the costs of electronic equipment, far from rising with other costs, are showing a steady fall in real costs. Hence the widespread availability of such

Annan Report reference

CET Evidence reference

equipment may come fairly quickly, once the present extreme economic stringency eases. Moreover, it is technically possible to switch unattended recorders on and off as often as required by signals incorporated in the broadcast itself.

19 The assumption that extensive programme recording would involve substantial investment in cassettes and their storage overlooks the highly economical pattern in which programmes are recorded at whatever time they are broadcast for replay at a more convenient time for students, after which the cassette is reused to record another programme. *It would, therefore, be well worth investigating educational transmissions during the dark hours,* when the networks are not used for public service broadcasting. A national educational communications body could usefully explore this possibility. It
19.19 is unlikely that there is any difference in educational effect between off-air and recorded material.

APPENDIX C

COMMENTS ON THE REPORT OF THE COMMITTEE TO CONSIDER THE LAW ON COPYRIGHT AND DESIGNS

C COMMENTS ON THE REPORT OF THE COMMITTEE TO CONSIDER THE LAW ON COPYRIGHT AND DESIGNS

1. The Council for Educational Technology has read with interest the Report of the Committee and would like to record its satisfaction that the Committee accepted the Council's evidence as representative of the majority of those working in education and training. The Council hopes that the following comments and proposals will assist in the preparation of new legislation which will be of long-term benefit to both copyright owners and to the users of protected material for education and training purposes.

2. The recommendations

The Council's reaction to the specific proposals of the Committee are set out below, preceded where helpful by the appropriate recommendation(s) as they appear in Chapter 20 of the Report.

3. General considerations

'918. The general structure of the Copyright Act 1956 should be revised in order that the law may be placed on a plain and uniform basis. In particular, in any new Copyright Act:

(i) Matters of principle applicable to all classes of protected matter should be set out first, followed by particular exceptions relating to particular classes of matter (paragraph 28).

(ii) There should be one comprehensive definition Section placed at the beginning of the Act (paragraph 35).

(iii) The general words of description used in the Copyright Act should relate more closely to the way in which those words are commonly used (paragraph 36).'

The Council is aware that, although the law of copyright affects everyone, there is much ignorance and confusion about the provisions of the 1956 Act even among those, like teachers, who use, and even rely on, protected material for the efficient performance of their work. The Council therefore fully supports this recommendation, and in particular (iii), as being a major factor in promoting an understanding of the new copyright act and, therefore, its effectiveness as legislation.

4. International conventions

'919. The United Kingdom should ratify the Paris text of the Berne Convention.'

The Council supports the proposal to ratify the Paris text of the Berne Convention. In this conection, the Council welcomes the review, in Chapter 2 of the Report, of the international conventions as being both helpful and readable, characteristics of the Report as a whole.

5. Reprography

'927. (i) There should be a flexible system of blanket licensing to cater for all user requirements for facsimile copies, including library, educational, Government, industrial and professional copying; but there should be no compulsory licence to publish (paragraph 278).

(ii) To encourage copyright owners to set up schemes, the Act should provide that, within particular areas to be designated by regulation and after due time for schemes to be promulgated, reprographic reproduction shall not be an infringement unless and until a blanket licensing scheme is in fact promulgated (paragraphs 278 and 279).

(iii) The number of separate blanket licensing schemes should be limited by providing that they

may only be administered by collecting societies recognized by the Minister (paragraphs 278 and 282).

(iv) All negotiations between collecting societies and users should be subject, in the case of dispute, to appeal to a copyright tribunal (paragraphs 278 and 287).

(v) Once a scheme is in operation, the present latitude for the making of single copies under Section 7 of the Copyright Act 1956 should no longer apply; nor should Section 6 (fair dealing for the purposes of research or private study) permit the making, even by the student himself, of reprographic (facsimile) copies (paragraph 276).

(vi) Persons installing coin-operated machines would require a special licence and it would be no excuse that the machine bore a notice forbidding its use for infringement of copyright (paragraph 285).

(vii) Schemes should, in principle, cover all published works and also certain unpublished ones (paragraph 288).'

5.1 The Council agrees that reprography should continue to be a restricted act (paragraph 278 (i)) and supports the proposal for blanket licensing schemes. The Committee has foreseen the need to limit the number of licensing societies (iii) but the Council considers that one licensing body, representative of *all* copyright owners, would be most efficient, because

(a) the cost of running a licensing body represents a considerable proportion of the revenue and there would be economies of scale in operating a single agency

(b) the Committee's division of literary copyright into books and periodicals overlooks the special needs of, for example, music and map publishers

who might wish to set up their own agencies, unless only one were permitted

(c) it would be convenient and economic if users could acquire all permissions from one body and this is particularly important with the increasing use of multi-media material, for example, packs comprising literary material together with slides and tapes

(d) it would also be beneficial if the right to copy and the right, where applicable, to perform from, or give a performance of, the copy could be acquired by making a single application to one licensing body. However, this is subject to the Council's view on performances in general, which is stated at 6.3 below.

The Council envisages that the single licensing agency might be the licensing wing of a parent body which would consist of representatives of the rights owners of all classes of protected material. In addition to the issue of licences, it would be responsible for deciding on the distribution of the revenue to the individual representative organizations along the lines of the WORT organization in Germany.

5.2 The Council supports the setting up of a copyright tribunal to arbitrate in cases of dispute. Procedures for use of the tribunal should be kept simple so that they in no way inhibit those who wish to use them.

5.3 The Council is concerned that the implementation of proposal 927 (vi) will cause confusion and resentment in educational institutions. In such places copies are frequently made on open access machines which are provided for the convenience of students who require copies for private study. This

facility is merely an alternative to making multiple copies for distribution, a process which would be covered by the blanket licence granted to the institution. The Council considers that this is a purely arbitrary distinction and that, since it is inappropriate for an institution to pay twice for the same facility, where an educational institution qualifies under the proposed arrangement for blanket licensing the licence should permit reprography within the institution irrespective of the arrangement for providing copies.

5.4 The Council, although regretting the proposal to abolish the fair dealing provisions in respect of reprography (v), recognizes that, with the development of coin-operated machines on public open access, the Committee's view is reasonable, and where blanket licences are not appropriate then a charge on the provider of equipment is justified.

6. Audio and video recording (for educational purposes)

'929. (i) Payment of the proposed levy on the sale of recording equipment should be supplemented by an annual licence fee payable under a negotiated blanket licensing scheme (paragraph 324).

(ii) Negotiations in this respect between collecting societies and users should be subject, in the case of dispute, to appeal to the same statutory tribunal as it is recommended should have jurisdiction over the levy (paragraph 324).

(iii) After due time for schemes to be promulgated, the exercise of the recording right for educational purposes should only be possible through a collecting society and, in the absence of a collecting society offering suitable blanket licences, the right should be unenforceable (paragraph 325).

(iv) Subsections (3) to (5) of Section 41 of the Copyright Act 1956, permitting the performance of

copyright material before strictly school audiences, should be retained. Otherwise, performance should be by licence (paragraph 326).'

6.1 The Council supports the Committee's proposal that audio and video recording for educational purposes be subject to a negotiated blanket licensing scheme. However, the Council does not accept that this should be in addition to payments made through the levy on equipment purchased by education. Such arrangements will complicate the negotiation of licences and, although it would not be practical to exempt education from paying the levy, the Council considers that educational licence-holders should be able to reclaim the levy already paid.

6.2 The Council is concerned that the implementation of a licensing scheme may be hindered by the decision of the Committee, explained at paragraph 416, not to extend to performers the same obligation to permit recording as is suggested for copyright owners. This will put record manufacturers and others who use recorded performances in the position of having an obligation to permit recording under licence whilst at the same time being bound by contracts with performers who are under no similar obligation, and who presumably will not be bound by any decision of the proposed arbitration tribunal. The Committee does not say why it accepts the Musicians Union claim that the right of performers should be preserved but it is the Council's experience that the Musicians Union is most reluctant to permit recording, even where remuneration is offered. Therefore the Council urges that in consolidating the Performers Protection Acts, as recommended by the Committee at 933 (vii), the opportunity should be taken of including the same obligations on performers as the

Committee recommends for copyright owners.

6.3 Under Section 41 of the 1956 Act the performance of any class of material is permitted in schools. This concession does not apply to other educational establishments such as universities and they must have the permission of the copyright owners to perform, even in class. The Report at (iv) recommends that this distinction be retained in the new act. Increasingly it is difficult to distinguish between them, and the Committee, in making proposals for reprography and recording, does not try, referring only to educational use. If the Committee's proposals are implemented, the effect would be that, although rights owners would have an obligation to permit copying, there would be no corresponding obligation to permit a performance of the copy or by way of the copy. The Council therefore recommends that the new act should permit the performance of all classes of material for curricular purposes in education and training, whether by way of licensed copies or otherwise.

7. Performing rights

'932. (i) Section 12 (7) of the Copyright Act 1956 should be deleted so as to remove the exception relating to the public performance of sound recordings by certain classes of users (paragraph 379).

(ii) A majority think Section 40 (1) of the Copyright Act 1956 should be deleted so as to provide that the public performance of sound recordings through the reception of BBC or IBA broadcasts is an infringement (paragraph 383).

(iii) In relation to the provision of Section 48 (6) of the Copyright Act 1956 concerning the use of any apparatus for reproducing sound by the use of records, it should be made clear that both the

persons providing and the persons procuring such apparatus are liable as infringers (paragraph 388).

(iv) The jurisdiction of the Performing Right Tribunal should be extended to cover licences in respect of the United Kingdom reproduction right, in musical works at least, but restricted to licensing bodies which have as their main object, or one of their main objects, the negotiation or granting of licences in respect of the reproduction and/or performing rights of the works of several authors (paragraph 394).'

In its comments at 6.3 above, the Council has asked that the current exemption for performance in schools be replaced in the new act by a general provision to allow performance for curricular purposes in education and training. The Council therefore regrets that the Committee is recommending that the current exemption in section 12:7(b) of the 1956 Act, which benefits establishments other than schools, should not be repeated in the new act. It seems pointless to impose on the makers of sound recordings an obligation to allow re-recording whilst at the same time removing an existing concession which permits the recording to be performed. The Committee does not make any case for withdrawing the concession from education, which it appears to equate with hotels and social service organizations as no longer deserving of relief.

8. Performers Protection Acts 1958-1972

Subject to the proviso about the need to impose an obligation on performers to permit recording as outlined at 6.2, the Council supports the recommentations of the Committee as listed at 933.

9. Diffusion

'934. (i) The restricted act covering diffusion should refer simply to communication of works or subject matter to the public by wire, as in the Berne Convention (paragraph 437).

(ii) There should be provision not only, as now, for control of diffusion by authors and composers generally and by makers of cinematograph films but also for control by makers of sound recordings and broadcasters (paragraphs 446 and 456).

(iii) There should be no specific educational exceptions in respect of diffusion, except that (as already recommended in Chapter 5) provisions equivalent to Subsections (3) to (5) of Section 41 of the Copyright Act 1956 should be retained (paragraphs 462 and 463).'

9.1 The Council agrees with the proposal at (i) but would wish to propose that the diffusion of copyright material should not be an infringement where it is by way of educational systems, to be defined as those within or joining separate parts of the same institution or joining separate institutions maintained by the same educational or training authority or body.

9.2 If the proposal made by the Council at 9.1 is accepted, then the Committee's suggestion, that the makers of sound recordings should have the right to control diffusion, is not relevant to education and training. If it is not accepted, then the need to seek permission to diffuse sound recordings will be an added responsibility on the education and training systems, and the Council proposes that, in these areas, the present situation should apply and they continue to be exempt from the provision.

10. Computers

'935. (v) A majority also recommends that the unauthorized "use" of computer programs to control or condition the operation of computers should be an infringement (paragraph 499).'

The Council supports the recommendations in respect of computers and agrees with the majority of the Committee which thought that the unauthorized "use" of computer programs to control or condition the operation of computers should be an infringement.

11. Ownership

'937. (ii) So far as works produced by employees are concerned, the copyright in work produced by an employee in the course of employment should vest in the employer but if a work produced by an employee is exploited (by the employer or someone else with his permission) in a way that was not within the contemplation of employer and employee at the time of making the work the employee should have a statutory right to an award from his employer which, if not agreed, should be settled by arbitration by a tribunal. This provision, which would be subject to agreement to the contrary, would replace the "journalists" exception in Section 4 (2) of the Copyright Act 1956, as well as the general employee exception in Section 4 (4) thereof (paragraphs 571 and 574).

(iv) So far as commissioned works are concerned, a majority of the Committee recommends that, subject to any agreement to the contrary, the copyright in all commissioned works should belong to the author (or employer), subject to two important qualifications: (1) the person commissioning the work should have an exclusive licence for all purposes which could reasonably be said to have

been within the contemplation of the parties at the moment of commissioning: and (2) the commissioner should have the power to restrain any exploitation for other purposes against which he could reasonably take objection (paragraph 577).

(vii) The author of a photograph should be defined as the person responsible for the composition of the photograph (paragraph 587).'

11.1 The Council welcomes the Committee's proposals regarding works produced by employees as being a fair solution in an area where the arguments in favour of employer or employee are often finely balanced. However, the Council foresees difficulties over the interpretation of the phrase 'within the contemplation of the parties', as often questions of ownership arise months or years after production when it is difficult to establish what was in the minds of the parties. Whilst agreeing with the approach of the Committee, the Council requests that this phrase be clarified in the new act rather than waiting for case law to establish its meaning.

11.2 The Council's reservations about the phrase 'within the contemplation of the parties' apply also to the Committee's recommendation for commissioned works at (iv).

11.3 In recommending at (vii) a change in the ownership of copyright in a photograph, the Committee does not specifically deal with photographs taken by employees. The Council suggests that in the new act it should be made clear that photographs are included along with other works for this purpose.

12. Exceptions

'941. (i) There should be a general exception covering all classes of copyright works and subject

matters in favour of "fair dealing" which does not conflict with normal exploitation of the work or subject matter and does not unreasonably prejudice the copyright owner's legitimate interests (paragraphs 676 and 677).'

The Council welcomes the extension of the principle of fair dealing to all classes of material and for all purposes not detrimental to the copyright owner. The Council is less happy with the suggestion, at paragraph 677, that if specific reference to research is retained it should be prefaced by the word 'private'. The adoption of the proposal would lead to uncertainty as to when research is 'private' or otherwise, as a sensible definition is not likely. Frequently research is started as a private venture and the results are then published. The Council agrees with the Committee at paragraph 676 that it would be preferable to have a general fair dealing provision related not to the purpose but only to the effect on the copyright owner.

13. Miscellaneous topics

'962. It should be made clear in any new Copyright Act that the definition of cinematograph films covers video recordings (paragraph 889).'

The Council welcomes the proposal that the definition of cinematograph films should cover video recordings.

14. Conclusions

The Council welcomes the acceptance by the Committee that education should have the right to use protected material in various ways coupled with an obligation to pay equitable remuneration to the copyright owner. It welcomes the practical approach of the Committee and its recognition of current practices in education. It considers the schemes for

statutory licensing to be sensible but is concerned that higher and further education will, in the areas of diffusion and performance, be less well provided for than under the 1956 Act. In particular, the Council feels that the Committee may have been too reluctant to think outside the confines of the existing legislation and too ready to equate educational, and especially higher and further educational, use with non-educational use. The Council sympathizes with the wish to restrict the number of exceptions but, for example, to extend to education and training generally the right to perform as presently granted to schools, is not to increase the exceptions but only to rationalize an existing one. In particular, there is a tendency to separate 'schools' from education generally. This is an increasingly artificial distinction in view of the development of sixth form and tertiary colleges, the introduction of the Open University, and the increasing number of open and distant learning systems in which the student learns under the guidance of staff in an educational institution but may not be physically present in the institution for much of the duration of the course. The Council considers that concessions should relate to the process of education and training and not be tied to particular classes of establishment which, over the period of the new act, may change or even disappear.

APPENDIX D

COMMENTS ON THE REPORT OF THE COMMITTEE ON CONTINUING EDUCATION OF THE OPEN UNIVERSITY

D COMMENTS ON THE REPORT OF THE COMMITTEE ON CONTINUING EDUCATION OF THE OPEN UNIVERSITY

1. Introduction

The Council for Educational Technology made extensive observations of a general nature in June 1976 in response to the interim report of the Committee on Continuing Education.

These observations were set in the context of our interest in the application of new learning methods, including open learning systems and distant teaching, to continuing education. Our view was, and remains, that these have a particular application to the extension of further education provision for the motivated adult student leading to currently accepted qualifications. Younger students are probably best helped by direct teaching within the present arrangements, while adults seeking informal education would probably continue to benefit most from the existing provision including national and local broadcasting.

The mature adult student wishing to study for a recognized qualification, however, can be hindered by problems of access despite the excellence of the overall provision of courses within institutions of further and higher education. A threshold of convenience of access is set by the availability to the individual student of the particular course he requires at the place and time that suits his circumstances.

We felt, therefore, that there was a case for improving the availability and utilization of the existing further and higher education resources. The Open University, we suggested, had particular contributions of skills and knowledge to make in relation to: the development and operation of course design teams; student assessment and services; the growing need for post-graduate

and post-experience courses; the provision, in association with other agencies, of learning resources.

We welcome the reflection of these views in the Committee's final report, and do not propose to respect them at length. Instead, we comment here on specific aspects of the final report where we believe that there are opportunities for cooperation between CET and the Open University.

2. Library services

'. . . the Open University should strongly support the integrated development and use of the library services, both public and in educational institutions such as universities, polytechnics and colleges, as part of a general improvement of this national resource in continuing education'. (Paragraph 39).

CET has extensive contacts with educational and other librarians, is already in informal discussion with the Library Association about the fuller collaboration of the public library service with education, and would be pleased to bring the OU viewpoint into its work in this field.

3. Educational broadcasting

'. . . the Open University should press for a considerable increase in time for educational broadcasting, and particularly for continuing education'. (Paragraph 88).

In our submission to Government in connection with the review of the future of broadcasting, we recommended an organizational framework for educational broadcasting designed to ensure that broadcasting develops as part of a complex of resource provision and distribution rather than as a distinct activity and

includes a proper inter-relationship of local, regional and national interests.

To this end we proposed the creation of a national educational communications body that would have rights of access to distribution facilities; would allocate available distribution facilities to meet educational programme needs; would coordinate production of materials by broadcasters, commercial producers and educational institutions; and would have funds with which to contribute to or commission educational productions. We argued that agreement on what hours on what channels are available to education should be negotiated between the broadcasting authorities and the body.

We believe that an increase in time for educational broadcasting, which we strongly support, would be best secured and maintained in the long term by a body of the kind we have recommended. Accordingly, we urge that the Open University puts its weight behind our proposal.

4. Copyright

'. . . a sustained analysis should be made of the problems of copyright'. (Paragraph 46).

CET's work on copyright includes negotiating arrangements which permit the use of copyright material for education and training purposes, the publication of guidance and advice on copyright as it affects education and training, and recommendations to Government on revision of the copyright law. In view of our experience in this area, we believe that we could usefully contribute to a 'sustained analysis' of the problems of copyright; we would, therefore, welcome discussions with the Open University to explore possibilities for collaboration.

5. Technical equipment

'. . . a sustained analysis should be made of the problems of . . . compatibility of technical equipment'. (Paragraph 46).

The CET Working Party on Standards and Specifications is concerned, amongst other things, with the problems of equipment compatibility. It would probably be mutually beneficial for the OU and this group to work closely together and CET would, therefore, be pleased to explore how contact might best be established and maintained (see also 8 below).

6. In-service training

'. . . the Open University should encourage collaboration with appropriate, interested bodies in the production of further post-experience courses in the professional and vocational fields'. (Paragraph 77).

CET is looking carefully at the need to develop a variety of collaborative arrangements for the provision and exploitation of course support materials and study packages for the in-service training of teachers. We are examining the problems of using on a national scale materials produced for specific local purposes, and are supporting pilot schemes in three local authorities for the coordinated generation and use of learning materials for in-service courses (including materials originated by, among others, the OU).

Preliminary contact on the general issue covered by the recommendation has been made with the Open University, which is also understood to be discussing a joint activity with the Schools Council. CET would be prepared to convene a meeting of interested bodies, including the Open University and the Schools Council, to examine the possibilities for the coordinated generation of in-service training materials.

7. Support for independent learning

'. . . the Open University should seek to initiate pilot experiments with polytechnics and colleges of further and higher education, whereby part-time students using independent learning methods might spend one day a week or equivalent in local laboratories or other work space provided by such institutions'. (Paragraph 87).

Some of these experiments might come within the scope of the CET programme concerned with open learning systems for mature students wishing to follow non-degree courses. An initial investigation was completed earlier this year with the advice of a group that included a senior member of the OU (the outcome will be published shortly), and a further programme of work is now being planned. We therefore hope that the OU will continue to participate in our work.

8. Teleconferencing

'. . . the Open University should proceed quickly to investigate the setting up of teleconferencing links between study centres through means of appropriate telephone services'. (Paragraph 92).

CET is currently looking at the potentialities of communications networks (including teleconferencing) for education. So that the Council and the OU may establish and maintain close contact in this area, the OU will be invited to participate in the studies.

9. National network of resource centres

'. . . the Open University should maintain close liaison with the appropriate national bodies concerned with open learning systems and educational resources, and in particular the Council for Educational Technology and the Scottish Council for Educational Technology,

to encourage the development of a national network of resource centres'. (Paragraph 92).

We recognize the powerful contribution that the OU could make to a national network, and welcome the recommendation of liaison with CET. Indeed, CET would seem to be the appropriate agency to take the initiative in coordinating discussions about the need for, and the feasibility of, establishing a network. We therefore invite the Open University to collaborate with us in planning a suitable course of action.

10. Continuing Education Division
Appendix XI (page 111) states that the proposed Continuing Education Division (paragraph 108) 'would have external members coopted from a variety of outside organizations'.

In view of the extent of mutual interest, as exemplified by our comments, CET would welcome cooption to the proposed Division.

APPENDIX E

REPORT OF THE OUTCOME OF FIVE SEMINARS ON COMPUTER ASSISTED LEARNING

E REPORT TO THE DEPARTMENT OF EDUCATION AND SCIENCE ON THE OUTCOME OF FIVE SEMINARS ON COMPUTER ASSISTED LEARNING

1. Background

The Council for Educational Technology (CET) was asked by the Chairman of the executive Programme Committee of the National Development Programme in Computer Assisted Learning (NDPCAL) to conduct a series of seminars on the work of the Programme. The aim was to establish the views of senior policy-makers who might have to take decisions affecting the future application of computer assisted learning, on the effect of the National Development Programme and the activities which might be required after the termination of the Programme on 31 December 1977.

2. Organization

2.1 Five seminars have been held early in 1977: one for representatives of the Vice-Chancellors and Principals of UK Universities, one for representatives of the Directors of Polytechnics, one for representatives of Chief Education Officers in England, Wales and Northern Ireland, one for the representatives of the Central Institutions and Directors of Education in Scotland, and one for the Council for Educational Technology itself. In addition, the NDPCAL have run two similar seminars, one for senior Government staff (October 1976) and one for the Training Services Agency and the training for employment sector (March 1977).

2.2 In all except the seminar for the Council the programme consisted of a presentation of the National Programme in the morning followed by a general discussion in the afternoon. The members of the Council had the presentation followed by a short question

time. For each seminar the programme was varied to include reports on projects likely to be of particular interest to the audience. The chairmen of the seminars – Dr Harry Kay, Vice-Chancellor of the University of Exeter; Mr David Bethel, Director of Leicester Polytechnic; Mr Joslyn Owen, Chief Education Officer of Devon County Council; Professor David Sharp, Ramsay Professor of Chemistry at the University of Glasgow, and Chairman of the Scottish Council for Educational Technology – have assisted in the preparation of this report, which has been discussed fully by the Council's Executive Committee. It thus represents both a summary of the outcome of the seminars and a commentary by CET itself.

3. Results

3.1 Many of those who attended were pleasantly surprised at the wide range of activities undertaken by the National Programme, having feared that the effort was directed solely at developing tutorial Computer Assisted Instruction (CAI) as a replacement for teachers. This false view of CAL is still held quite widely, despite NDPCAL's contrary arguments and activities proving otherwise; hence these seminars were valuable correctives.

3.2 Comments on the effectiveness of the NDPCAL highlighted the success of its development strategy in aligning CAL work with mainstream curriculum development and involving institutions, departments and authorities in collaborative efforts to spread costs. There has been extensive transfer of ideas and materials which has avoided wasteful duplication and encouraged widespread adoption of worthwhile applications.

3.3 Several unfortunate omissions were noted, though it was acknowledged that Government had prescribed the Programme's field of activity. The extension into history and geography was welcomed but it was felt there should be more work in the humanities. Other areas suggested for CAL development were linguistics at university level, art, design and particularly work with handicapped students.

3.4 Various lessons from the Programme's experience were discussed. It was felt that they provided useful guidance to teachers and administrators. The main points were that:

(a) computers do not replace teachers but they can change their role and influence curriculum development

(b) computers should be used where they improve student learning or create new, better learning opportunities

(c) education has special computing needs which make dealing with the computer industry far from straightforward.

3.5 Some noteworthy points made at specific seminars were that:

(a) among the university representatives there was appreciation of the research issues and opportunities created by use of CAL and CML systems

(b) at the Polytechnic Directors seminar there was strong interest in encouraging more inter-institutional cooperation to develop CAL, and national advice on good practice and coordination to avoid wasteful duplication was required

(c) in the local education authorities sector the increased demand for and use of computers call for a coordinated purchasing policy and greater understanding of technical details, maintenance requirements

and costs; more information about sources of specialist advice and projects should be available nationally

(d) certain types of occupational training, such as for manual, craft skills, are unlikely to benefit from computer assistance

(e) discussions at the SCET seminar in Glasgow explored the potential value of computers for distant learning systems in rural areas.

3.6 A number of general points appeared to have wide support among the seminar audiences. These were that:

(a) educational providers and users of computers need specialist advice on their purchase and application for CAL

(b) the future of computers in education was thought to be secure and inevitable but limited support is needed to prevent the dissipation of the achievements of current efforts

(c) transfer of CAL material involves extra cost above that required for development and therefore is unlikely to be funded by a single institution; however, at the national level there are significant savings if several institutions use the same material and so exchange facilities should receive national support.

Generally there was a strong demand for a national body which would encourage good practice and worthwhile applications of computers, provide information and access to specialist advice, and promote cooperative development and dissemination of existing materials.

4. Future action

4.1 CET has already agreed that it should be responsible for any continuing activity. The NDPCAL sprang

from reports published by the former NCET, which identified CAL as an advanced educational technology deserving a special development programme. It is timely that CAL should now move once more towards being an integrated part of educational technology; indeed, it was significant that the main educational technology and CAL conferences this year had a common day and that more than one example of CAL occurred in the presentations at the educational technology conference.

4.2 It is clear that the finance available will not be on such a scale as to continue support of development activity. However, the insistence by the Programme on institutional involvement through matched funding has rendered it probable that the greater part of current activity will continue after the central funding ends.

4.3 There will thus be a period of consolidation, lasting perhaps two or three years. It is more than likely that some major development will then again be desirable; the Council intends to explore the form and timing of such a programme and to make representations to Government accordingly in due course.

4.4 Meanwhile, the need to be met by CET is for a support activity which will:

(a) provide encouragement for and maintain links between the CAL groups currently active

(b) develop the arrangements for the exchange of programs and of general information

(c) facilitate the discussion of new ideas relating to computers in education.

4.5 Moreover, CET will aim to strengthen the links between CAL and other educational technology activity and to develop an integrated programme.